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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/521,121

01/12/2005

Donald Lee Shandera

CGL02/0023US01

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CARGILL, INCORPORATED
LAW/24
15407 MCGINTY ROAD WEST
WAYZATA, MN 55391

EXAMINER

PRATT, HELEN F

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

08/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/521,121 | Applicant(s) SHANDERA ET AL. | |
| | Examiner Helen F. Pratt | Art Unit 1794 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vidal et al. (4,338,343).

Vidal disclose a method of treating grains such as corn or sorghum using The agent can be thiourea as in claim 1 and 12 (col. 3, lines 34-35, col. 14, lines 25-26).

Claims 1, 12 and 18 further require that the treated corn is wet milled. However, applicant's specification on page 4, lines 19 and 20 that wet processing or milling is conventional. Even if the corn of Vidal is treated with thiourea for sterilization purposes, the corn must have some end use, since the grain is only stored until needed. The reference discloses that it is known to store grains, which will eventually be used for conversion into products such as flour, molasses, etc. (col. 1, lines 30-40). As the corn has been contacted with thiourea and then can be milled, the claimed limitations are seen to have been met. Therefore, it would have been obvious to use a further conventional process of wet milling to further process the corn.

A solution is disclosed as in claims 2 and 4 and contacting the agent treated with the solution is disclosed as the agent is applied to the grain (col. 14, lines 10-14) as in claim 3.

Water is considered to be in the solution, since it is aqueous as in claim 5 and the agent is as claimed as in claim 6 as in thiolactic acid, and thiocyanate, is considered to be a thiosulfate (col. 14, lines 5-14).

The amount is seen to have been within the claimed amount as in claims 14, 15, since the use of the disproportionate product (thiosulfate is from 1:0.10 to 1:1) (col. 7, lines 1-6, col. 14, lines 22-24).

Particular amounts of time are disclosed in col. 10, lines 5-55 as in claims 16-17.

Claims 7-11, 13 are to various forms of sulfur containing compounds. As one thiourea has been disclosed as in claim 1 above, it is seen that the instant types of sulfur compounds are obvious variations absent a showing to the contrary, and would have had the same effect as the disclosed thiourea. Therefore, it would have been obvious to use obvious variations of thiourea which perform the same function.

Claim 18 is to using the treated component in a process for producing starch, and claims 19 and 20 are to using the claimed treated component in a feed stock, and claim 21 is to a fermentation feed stock. However, these are the usual processes and products for which grains such as corn are used. It is known to preserve grains in general, and then to make starch or fermentation products (col. 1, lines 37-45, col. 2, lines 9-11). Nothing new is seen in using a preserved product to make a known product such as in a fermented feedstock or to make a starch product, absent anything new or unobvious in the particular method in which the starch or fermentation feedstock were preserved. Therefore, it would have been obvious to use a well known milling process in the further treatment of corn.

Claim 19 further requires wet processing the corn to make starch or a protein stream and then to ferment the starch or protein. However, page 1, paragraphs 2 and 3, of applicants' specification discloses that it is known as being a traditional process to wet mill, and to separate the composition into protein, fiber and starch, and to use the starch for alcohol production, which is a known fermentation process. Therefore, it would have been obvious to use conventional processes to further process the treated corn which has been held for storage as shown by Vidal et al.

ARGUMENTS

Applicant's arguments filed 8-12-08 have been fully considered but they are not persuasive. Applicants argue that Vidal et al. teaches only inorganic forms of sulfides. However, Vidal et al. in the Background of the invention teaches that it was known to use thiourea as a preservative which enriched green matter with nitrogen and sulfur. If thiourea could preserve green matter, nothing is seen that it could not preserve corn and millet, which of course come from green plants.

The reference to Vidal teach that it is known to use a sulfur containing products on corn, which is intended to be made into other products, such as flour which contains starch. The use of the thiourea would have the same effect as that claimed, since it is an organic source of sulfur as claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen F. Pratt whose telephone number is 571-272-1404. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00.

Art Unit: 1794

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Milton Cano, can be reached on 571-272-~~1398~~. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Helen F. Pratt/Primary Examiner, Art Unit 1794

8-21-08